

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of:)	
)	
Amendment of Part 90 of the Commission's)	WP Docket No. 16-261
Rules to Improve Access to Private Land)	
Mobile Radio Spectrum)	
)	
Land Mobile Communications Council)	RM-11719
Petition for Rulemaking Regarding Interim)	
Eligibility for 800 MHz Expansion Band and)	
Guard Band Frequencies)	
)	
Petition for Rulemaking Regarding)	RM-11722
Conditional Licensing Authority Above 470)	
MHz)	

**COMMENTS OF
THE NATIONAL PUBLIC SAFETY TELECOMMUNICATIONS COUNCIL**

The National Public Safety Telecommunications Council (NPSTC) submits these comments in response to the Commission's Notice of Proposed Rulemaking in the above-captioned proceeding.¹ The Notice of Proposed Rulemaking seeks input on proposals that stem from two requests by the Land Mobile Communications Council, including the extension of conditional licensing to Part 90 bands above 470 MHz and implementation of an advance filing window for existing licensees to request 800 MHz expansion band and guard band channels. The Commission also requests comments on allocation of certain band edge channels to the Part 90 services, modification of the current rules for channels reserved for central station alarms and modification of the rules to allow higher power for signal boosters on certain railroad channels to support railroad operations. NPSTC addresses each of these proposals in these comments.

¹ Notice of Proposed Rulemaking, WP Docket No. 16-261, released August 18, 2016.

The National Public Safety Telecommunications Council

The National Public Safety Telecommunications Council is a federation of public safety organizations whose mission is to improve public safety communications and interoperability through collaborative leadership. NPSTC pursues the role of resource and advocate for public safety organizations in the United States on matters relating to public safety telecommunications. NPSTC has promoted implementation of the Public Safety Wireless Advisory Committee (PSWAC) and the 700 MHz Public Safety National Coordination Committee (NCC) recommendations. NPSTC explores technologies and public policy involving public safety telecommunications, analyzes the ramifications of particular issues and submits comments to governmental bodies with the objective of furthering public safety telecommunications worldwide. NPSTC serves as a standing forum for the exchange of ideas and information for effective public safety telecommunications.

The following 16 organizations serve on NPSTC's Governing Board:

- American Association of State Highway and Transportation Officials
- American Radio Relay League
- Association of Fish and Wildlife Agencies
- Association of Public-Safety Communications Officials-International
- Forestry Conservation Communications Association
- International Association of Chiefs of Police
- International Association of Emergency Managers
- International Association of Fire Chiefs
- International Municipal Signal Association
- National Association of State Chief Information Officers
- National Association of State Emergency Medical Services Officials
- National Association of State Foresters
- National Association of State Technology Directors
- National Council of Statewide Interoperability Coordinators
- National Emergency Number Association
- National Sheriffs' Association

Several federal agencies are liaison members of NPSTC. These include the Department of Homeland Security (the Federal Emergency Management Agency, the Office of Emergency Communications, the Office for Interoperability and Compatibility, and the SAFECOM Program); Department of Commerce (National Telecommunications and Information Administration); Department of the Interior; and the Department of Justice (National Institute of Justice, Communications Technology Program). Also, Public Safety Europe is a liaison member. NPSTC has relationships with associate members: The Canadian Interoperability Technology Interest Group (CITIG) and the Utilities Technology Council (UTC), and affiliate members: The Alliance for Telecommunications Industry Solutions (ATIS), Open Mobile Alliance (OMA), Telecommunications Industry Association (TIA), TETRA Critical Communications Association (TCCA), and Project 25 Technology Interest Group (PTIG).

NPSTC Comments

The Notice of Proposed Rulemaking (NPRM) seeks input on proposals that stem from two requests by the Land Mobile Communications Council (LMCC), including the extension of conditional licensing to Part 90 bands above 470 MHz and implementation of an advance filing window for existing licensees to request 800 MHz expansion band and guard band channels. The Commission also requests comments on allocation of certain band edge channels to the Part 90 services, modification of the current rules for channels reserved for central station alarms and modification of the rules to allow higher power for signal boosters on certain railroad channels to support railroad operations. The proposed modifications in these areas have been spurred by waiver requests.

NPSTC's primary focus on Part 90 rules and policies relate to those that affect public safety access to spectrum, operations and interoperability. However, public safety agencies and business/industrial and land transportation (B/ILT) entities are all in essence neighbors in much of the Part 90 private land mobile radio (PLMR) spectrum. Therefore, NPSTC genuinely appreciates the work of the LMCC to develop recommendations across all Commission designated frequency coordinators that can benefit PLMR part 90 applicants and licensees, public safety included. NPSTC also appreciates the leadership of the Commission and Bureau staff members to leverage the knowledge gained from individual waiver requests to help formulate proposals for rule changes. The best regulation is generally that which builds off of real world experience. NPSTC provides its comments on each of the NPRM's proposals in the remainder of these comments.

1. Conditional Licensing

Under Section 90.159(b) of the Commission's rules, most applicants proposing a new or modified station on frequencies below 470 MHz are permitted to operate the proposed station for up to 180 days, beginning ten days after the application is submitted to the Commission with concurrence from an applicable frequency coordinator. Such "conditional licensing" provides a mechanism whereby applicants can begin or modify necessary operations without the need to wait for full Commission processing of their respective applications. This benefits the applicant and provides the option to place the spectrum in use more expeditiously.

The Commission has proposed to extend conditional licensing authority above 470 MHz to the 800 MHz and 900 MHz bands as LMCC requested and on its own motion, requests comments concerning conditional licensing in the 700 MHz public safety band as well. However, the Commission has proposed NOT to extend conditional licensing to the 470-512 MHz T-Band as the LMCC requested and has cited the Spectrum Act provisions and Commission freeze on T-Band new or expanded T-Band operations as a rationale for that aspect of the proposal.

NPSTC supports amending Section 90.159 of the rules, and any other necessary related rule sections, to extend conditional licensing authority to all the Part 90 bands above 470 MHz. Conditional licensing provisions were first added to the rules in 1989 and after almost 30 years of experience and thousands of applications processed during that time, few if any problems have arisen as a result of conditional licensing.

Frequency coordination should be a pre-requisite for an applicant to benefit from conditional licensing. Coordination by a knowledgeable frequency advisory committee helps minimize any spectrum conflicts among licensees in the increasingly crowded spectrum bands administered under part 90 of the Commission's rules. Given frequency coordination would be required, that also translates to regional planning committee (RPC) concurrence for applications in the narrowband 700 MHz general use channels or the 800 MHz NPSPAC channels. Currently, RPC concurrence in these band segments is required to obtain frequency coordination.

With regard to the T-Band spectrum at 470-512 MHz, NPSTC supports the LMCC's request. The T-Band freeze imposed by the Commission subsequent to adoption of Spectrum Act already limits any public safety or industrial/business applications in the T-Band. Specifically, the freeze disallows applications for new or expanded facilities in the T-Band. It is not at all clear why it is necessary to prevent the benefits of conditional licensing from applying to any T-Band applications allowed. Conditional licensing would appear to have absolutely no bearing on any required Commission follow-up to the provisions of the Spectrum Act, even if the Spectrum Act ultimately is not modified or overturned to minimize the documented negative impact on public safety.² Accordingly, NPSTC supports inclusion of applications in the T-Band at 470-512 MHz as part of the expansion of conditional licensing authority.

2. Applications for 800 MHz Guard Band and Expansion Band Channels

NPSTC supports providing public safety and B/ILT incumbent licensees a 6 month advance filing window ahead of new applicants and SMR incumbents with respect to 800 MHz Guard Band or Expansion Band channels that become available. Both Expansion Band and Guard Band channels are important to the public safety and private land mobile communities and become available upon a Commission announcement that sufficient clearing has been achieved in a given NPSPAC region.

² The potential negative impact of the T-Band provisions contained in the Spectrum Act is documented in the NPSTC T-Band Report, released March 15, 2013 and the NPSTC T-Band Update Report, released May 31, 2016.

As explained in the NPRM, in the 800 rebanding proceeding the Commission created the Expansion Band at 815-816/860-861 MHz and Guard Band at 816-817/861-862 MHz to provide spectral separation between public safety licensees operating below 815/860 MHz and Enhanced SMR (ESMR) commercial systems above 817/862 MHz. Although supporting mostly business/industrial/ land transportation (B/ILT) licensees, the Expansion Band still includes public safety licensees that chose not to relocate during the 800 MHz rebanding process and some of these licensees may very well need to expand operations.

From an eligibility standpoint, the Guard Band channels are configured as a general access pool, available for public safety, B/ILT and SMR operations. Therefore, Guard Band channels are also an important potential spectrum resource for public safety whenever the Commission announces their availability in a given NPSPAC Region.

Although the upper portion of the Guard Band spectrum closest to ESMR operations above 817/862 MHz may not be appropriate for all public safety operations, channels closer to the lower end of the Guard Band with greater interference protection may be usable by some incumbent public safety agencies in the 800 MHz band for system expansion. Therefore, NPSTC supports including incumbent public safety and B/ILT licensees as entities eligible for any advance filing period ultimately adopted.

3. NPRM Proposals on Band Edge and Central Station Alarm Channels

The Commission proposes to make two UHF channel pairs located at the band edges between the broadcast auxiliary service (BAS) band and the private land mobile radio (PLMR)

band available for limited bandwidth PLMR operations, and to add those channels to the industrial/business (I/B) pool of channels in Part 90.³ Similarly, the NPRM includes a proposal to add two UHF channel pairs located at the band edges between the General Mobile Radio Service (GMRS) and the PLMR band for even more limited bandwidth operations in the I/B pool under part 90 of the rules.⁴ In general, NPSTC supports these proposals, subject to the ability of frequency coordinators to assist in the assignment of these new limited bandwidth channels to avoid interference to operations in adjacent channels. While the proposals do not directly benefit public safety, the addition of these few additional limited bandwidth channels for I/B operations helps put previously unassigned spectrum to use. Therefore, NPSTC supports the proposals.

The NPRM also proposes to broaden the possible uses of certain UHF I/B that have been reserved for central station alarm operations in the rules for over 40 years. Specifically, the Commission notes that four 12.5 kHz frequency pairs and the upper adjacent 6.25 kHz interstitial frequency pairs are designated for central station alarm use nationwide. Six additional 12.5 kHz frequency pairs and the upper adjacent 6.25 kHz channels are reserved for central station alarm use in 88 urbanized areas.

However, the Commission advises that a check of licensing records indicates that 39 of these 88 urbanized areas have no central station alarm licensees and no more than half the frequencies are assigned in any of the other 49 areas.⁵ The NPRM proposes to modify Section 95.35(c)(63) of the rules to remove the central station alarm limitation in urbanized areas where

³ The Commission proposes that these channels between the band edges of BAS and PLMR be limited to an authorized bandwidth not to exceed 6 kHz.

⁴ The Commission proposes that these channels between the band edges of GMRS and PLMR be limited to an authorized bandwidth not to exceed 4 kHz.

⁵ NPRM at paragraph 12.

the urban frequencies are not in use. In addition, the NPRM seeks comment on how many urban frequencies are actually needed for central station alarm use in various urban areas where some of the urban frequencies are being used.

NPSTC takes no position on whether the central station alarm limitation should be removed from certain frequencies in certain urban areas. NPSTC believes frequency coordinators and representatives of the alarm industry are in the best position to comment on the specifics of channels that are needed for central station alarm protection services going forward.

Once that determination is made, the Commission also needs to determine how best to make the channels, if any, not needed for central station alarm operations available for other uses. NPSTC notes that some of the urbanized areas listed in the NPRM where the Commission states that central station alarm frequencies appear to be underutilized coincide with some urban areas in which T-Band operations have been placed at risk by the Spectrum Act of 2012. This includes a direct negative impact on public safety T-Band operations and potential “collateral damage” to B/ILT band operations not directly mentioned in the Spectrum Act.

For example, footnote 33 in the NPRM lists areas in which the Commission analysis shows no use of the central station alarm urban channels. The areas listed include Baltimore, MD, Chicago IL, Pittsburgh, PA, and Washington, DC. Similarly, footnote 34, which includes the list of areas where the Commission believes no more than half the central station alarm urban channels are used, includes Boston, MA, Los Angeles, CA New York, NY/NJ and San Francisco, CA. These urban areas are also part of the 11 T-Band areas across the country.

The potential availability of these relatively few channels in no way solves the impact on public safety that the T-Band provisions of the Spectrum Act creates even if they were

determined not to be required for central station alarm operations going forward. However, a preliminary scan of the areas as listed in the NPRM certainly raises the question whether channels, if any, not needed for central station alarm operations in relevant urban areas should be prioritized for partial re-accommodation of T-Band licensees. Accordingly, once the Commission considers information from the alarm industry on its spectrum requirements going forward, NPSTC recommends the Commission consider whether any channels not needed should be prioritized for T-Band re-accommodation. NPSTC recommends the Commission embark on a more detailed analysis of central station alarm UHF channels not needed, if any, to qualify the availability and appropriateness of these frequencies to be used for re-accommodation in the T-Band areas.

4. Proposed Power Levels for Railroad Signal Booster Operations

The NPRM notes that in 2014, the Association of American Railroads (AAR) was granted a waiver of the rules concerning the use of signal boosters to help maintain communications between the front and rear of trains.⁶ In that waiver, the Commission waived Sections 90.291(d)(3) and 90.261(f) of the rules to allow fixed operation of Class A signal boosters located trackside with a power of up to 30 Watts Effective Radiated Power (ERP).⁷ The waiver was limited to two channel pairs of frequencies in the UHF band under the coordination purview of the AAR. The NPRM now proposes essentially to codify the terms of the waiver as a rule modification. NPSTC supports the proposal. The terms of the proposed rule change should assist in the safe operation of railroads and appear to have no negative impact to public safety operations in the band.

⁶ NPRM at paragraph 26.

⁷ Class A signal boosters are those designed to retransmit discrete frequencies.

Conclusion

NPSTC supports the original LMCC proposal to extend conditional licensing to the 470-512 MHz, 800 MHz and 900 MHz bands and also supports extending conditional licensing to the public safety 700 MHz narrowband general use channels. Such conditional licensing should be subject to applicable frequency coordination and regional planning committee concurrence where required. NPSTC also supports establishing an advance 6 month filing window for incumbent public safety and B/ILT licensees to apply for 800 MHz Expansion Band and Guard Band channels, prior to the channels being made available for new licensees and SMR incumbents.

NPSTC also supports the Commission's proposals to make available new limited bandwidth UHF channels located between the BAS and PLMR and between the GMRS and PLMR bands. NPSTC notes that some of the areas listed in the NPRM where certain UHF channels are reserved for central station alarm operations but are unused or lightly used according to the Commission's analysis coincide with some T-Band areas. NPSTC takes no position on the continued need for all of these channels for alarm operations going forward. However, NPSTC recommends the Commission obtain additional information from alarm industry representatives concerning their spectrum needs going forward and consider prioritizing channels not needed, if any, for potential T-Band re-accommodation. While these few channels in no way solve the T-Band impact of the Spectrum Act of 2012, they may benefit some T-Band licensees, if not needed for central station alarm operations.

Finally, NPSTC supports the proposed rule changes to allow fixed Class A signal boosters to be located trackside and operated at up to 30 Watts of ERP on specific railroad UHF railroad channels. This rule change should help enable safer train operations.

Paul R. Patrick, Vice Chairman

A handwritten signature in dark ink, appearing to read "Paul R. Patrick". The signature is stylized with large, rounded letters and a prominent "P" and "R".

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